

CONTENTS

	Page No.
List of tables	i
List of figures	ii-viii
List of photo plates	ix
List of abbreviations	x-xii
Chapter I	INTRODUCTION
	1-10
Chapter II	REVIEW OF LITERATURE
	11-23
Chapter III	MATERIALS AND METHODS
	24-37
3.1 Collection of soil samples	24
3.2 Sterilization of glass wares	24
3.3 Growth medium	26
3.4 Preparation of agar media	27
3.5 Isolation and maintenance	27
3.6 Identification of the test organisms based on morphological characters	27

3.7 Pesticide used	27
3.8 Analytical methods (Growth estimation)	32
3.8.1 Biomassestimation	32
3.8.2 Chlorophyll -a estimation	32
3.8.3 Carotenoid estimation	33
3.8.4 Protein estimation	34
3.8.5 Carbohydrate estimation	35
3.8.6 Rate of nitrogen fixation	35
3.9 Statistical analysis	37
Chapter IV RESULTS	38-99
4.1 Isolation and identification of the test organisms	38
4.1.1 Systematic position of the genus <i>Westiellopsis</i>	38
4.1.2 Taxonomic enumeration of the selected strains	39
4.2 LC ₅₀ values	39
4.3 Effect of Malathion on <i>Westiellopsis prolific</i>	44
4.4 Effect of Deltamethrin on <i>W .prolifica</i>	50
4.5 Effect of Carbofuran on <i>W. prolific</i>	56

4.6 Effect of Malathion on <i>W. indica</i>	63
4.7 Effect of Deltamethrin on <i>W. indica</i>	69
4.8 Effect of Carbofuran on <i>W. indica</i>	75
4.9 Effect of Malathion on <i>W. ramosa</i>	82
4.10 Effect of Deltamethrin on <i>W. ramosa</i>	88
4.11 Effect of Carbofuran on <i>W. ramosa</i>	94
Chapter V DISCUSSION	100-112
Chapter VI SUMMARY AND CONCLUSION	113-118
REFERENCES	119-150
PHOTO PLATES	